

Title (en)  
Changeable information scroll sign module

Title (de)  
Anzeigemodul zum Abrollen von veränderbaren Informationen

Title (fr)  
Module pour enseignes à défilement pour information interchangeable

Publication  
**EP 0923064 A2 19990616 (EN)**

Application  
**EP 98308695 A 19981023**

Priority  
US 99011397 A 19971212

Abstract (en)  
A web tension maintaining roll in a scroll sign module is arranged with its axis parallel to a rotatable second roll, both rolls being arranged for rotation between laterally spaced apart side frame members. For each roll, a short shaft projects from opposite side frame members toward each other for the roll to rotate about the common axis of the shafts. A motor driven drive shaft whose axis is transverse to the axes of rotation of the rolls has a worm fastened to the shaft adjacent each of the rolls. The worms are drivingly engaged, respectively, with worm gears that are supported for rotation about the axis of the short shafts and about the rotational axis of the rolls. The worm gear for the tension roll is coupled in driving relationship to the tension roll by way of a spiral spring whose inner end is connected to the worm gear and whose outer end is connected to the tension roll. The motor driven main drive shaft has a knob on at least one end or a cable connection that provides for turning the main drive shaft manually to provide the option of manual operation or motor operation of the sign module. The worm and worm gear roll drive mechanism precludes roll backlash. <IMAGE>

IPC 1-7  
**G09F 11/29**

IPC 8 full level  
**G09F 11/29** (2006.01)

CPC (source: EP US)  
**G09F 11/29** (2013.01 - EP US)

Cited by  
CN110271917A; GB2596136A; CN110459145A; GB2373621A; GB2373621B

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 0923064 A2 19990616; EP 0923064 A3 20000405; US 5979093 A 19991109**

DOCDB simple family (application)  
**EP 98308695 A 19981023; US 99011397 A 19971212**